ABSTRACT

A directivity control section 103 performs weight control over a received signal using channel estimation and optimum weights, performs processing such as generation of the received signal and generates a plurality of weight-controlled transmission signals. A received signal demodulation section 104 extracts an SIR measurement result from the received signal. A scheduler section 105 decides which terminal should be assigned to a channel to be adaptively modulated from the SIR measurement result and at the same time decides the modulation multi-valued number and coding rate of the signal to the terminal. A transmission signal generation section 106 modulates a transmission signal such as a reference signal or packet data. A directivity switching instruction section 107 controls switching between directivities so as to maintain the same directivity after the reference signal is transmitted with a directivity until packet data is transmitted with a directivity. This makes it possible to receive packet data with high quality, improve efficiency of a radio frequency band and maximize communication path utilization efficiency.